

The Effects of College Student's Perception of Social Norms on
Self-Reported Sexual Behavior

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Abstract

In self-reports of sexual behavior, males report more partners than females. While reliability established, validity is difficult to ascertain. The present study examines if an individual's perception of social norms biases their own self-reports. Participants filled out a sexuality questionnaire with a cover sheet that presented social norms as either as sexually conservative, moderate, or liberal. Social norms were also presented as coming from research findings or quotations from interviews. Results indicated that male's perception of social norms did influence their self-reported sexual behavior when the social norms were presented as quotations coming from interviews. This effect was enhanced in higher gender conforming males.

Introduction

Gender and Sexuality

The consensus of self-reported sexual behavior has shown that men report a greater number of sexual partners and an earlier age of first intercourse than women. In addition, research has consistently shown men tend to have more liberal sexual attitudes than women meaning men are more likely to be accepting of casual sex (sex outside of a committed relationship). These gender differences may be a result of biology, gender role socialization, or most likely an interaction between the two. In Western culture, gender roles tend to prescribe sexual freedom for males and sexual constraint for females (Baumeister, 2001).

In regards to females, intimacy and sexual fidelity are central to their gender role. For instance, the pervasive sexual double standard promotes sexual behavior among men while abases women for the same sexual behaviors. In general, society accepts casual sex for males whereas society only accepts sexual activity among women in the context of a committed relationship preferably marriage (Baumeister, 2002). Thus, there is motivation for women to under-report their sexual behavior due to stigma and the female gender role.

Socialization has a much different impact on men compared to women. For men, sexual conquest and success is integrated with the male gender role. Jonason (2007) found males assigned more prestige to other men and women with many sexual partners than men and women with fewer sexual partners whereas females assigned less prestige to other females with many partners than females with fewer partners. Therefore, being perceived as having many sexual partners gives males intrasexual prestige. As a consequence, the male gender role places importance on sexual experience and may led men to over-report sexual behavior.

Although some gender differences still exist in self-reported sexual behavior, other differences are not as significant. In the 2010 National Survey of Sexual Health and Behavior, 62.5% of men age 18-19 and 64% of women age 18-19 report having penile-vaginal intercourse in their lifetime. Additionally, the 2009 Youth Risk Behavior Surveillance found no significant difference between males (46.1%) and females (45.7%) when the adolescents were asked if they have ever engaged in sexual intercourse. (CDC, 2009)

Even though some gender differences regarding sexuality may be not be large, others still remain a significant difference. For example, the 2009 Youth Risk Behavior Surveillance found that males (16.2%) were significantly more likely than females (11.2%) to report four or more sexual intercourse partners. In 2006-2008, males ages 25-44 reported a median number of 6.1 lifetime sexual partners whereas females ages 25-44 reported a median number of 3.6 lifetime sexual partners. In the same study, 27.2% of males and 10.4% of females report having 15 or more lifetime sexual partners (Chandra, 2001). Another common gender difference is the self-reported age of first intercourse. For example, the Guttmacher Institute found that men report a median age of 16.1 and women report a median age of 17.2 (Singh, 2000).

Consequently, gender differences do exist in some domains of sexuality and not others. Depending on age, current data suggests that both males and females do not differ in regards to whether they have ever had sexual intercourse or not. In large and diverse samples, research has shown no significant gender difference as to whether or not they have ever engaged in sexual intercourse. Conversely, current data suggest there is a gender difference when it comes to self-reports of age at first intercourse and number of sexual partners. Therefore, it may be that gender roles in Western culture have their impact on number of sexual partners and age of first

intercourse rather than ever engaging in sexual intercourse per se culture in self-reports of sexual behavior.

Reliability of Self-Reported Sexual Behavior

A warranted concern when measuring self-reported sexual behavior is the instrument's reliability. Even with anonymity and confidentiality, research participants may not give consistent responses since sexuality is a private and sensitive topic for most individuals. Fortunately, there are studies that support measures of sexual behavior are indeed reliable.

Rodgers et al (1982) conducted a study asking adolescents on two occasions a year apart if they have ever engaged in sexual intercourse on two separate occasions a year apart. The researchers measured inconsistencies within the two time points. Between the two time points, 5.9% of participants gave logically inconsistent responses meaning they answered "Yes" at the initial time point and "No" at the second time point. Note this does not include participants that responded "No" at the initial time point and "Yes" at the second time point. This response pattern is logical since the adolescent could have been a virgin at the initial time point and engaged in sexual intercourse within the year before the second time point.

Similarly Alexander et al (1993) found when asked if they ever engaged in sexual intercourse, 11.2% of participants responded "Yes" in the 8th grade and the same participants responded "No" in the 9th grade. Another study examined the test-retest reliability of the 1999 Youth Risk Behavior Survey Questionnaire. Using the Kappa statistic, there was no significant difference between Time 1 and Time 2 in students' responses when asked if they have ever engaged in sexual intercourse and if they have had four or more sexual partners.

Overall, research has shown that self-reported sexual behavior is reliable. Although there are inconsistencies between two time points, the vast majority of participants in the various

studies report consistently. However, reliability of self-reported sexual behavior may be inflated. Reliability estimates do not include participants that respond as a virgin at the initial timepoint and then report having sexual intercourse at the second timepoint. This is a logical pattern and there is no method to distinguish participants that are responding reliably and those that are not.

Validity of Self-Reported Sexual Behavior

Since reliability has been supported for self-reported sexual behavior, it is also equally important to establish validity. There still remains the possibility that participants give reliable but invalid responses. Researchers must rely on self-reports to measure sexual behavior making validity difficult to determine. However, the use of biomarkers does allow for the possibility of an objective measurement rather than a subjective self-report questionnaire. Using the absence of an STD at an initial timepoint and the presence of an STD at a 3 month assessment, Orr et al (1997) found that of the adolescent females that reported having no sexual intercourse in the past three months 23% tested positive for an STD.

Siegel et al (1998) measured self-reported overall honesty and honesty specific to a sexual questionnaire amongst adolescents. Although overall honesty was rated higher than sexual honesty, the majority of adolescents reported complete honesty. Overall, 70.3% of females in middle school and 59.3% of males in middle school reported complete sexual honesty. Furthermore, 82.8% of females in high school and 79.1% of males in high school reported complete sexual honesty.

Different methodology for measuring adolescent sexual behavior has also examined the validity of self-reports. For instance, Jaspan et al (2007) compared self-report data using the traditional paper-based survey style and using a personal data assistant (PDA). While many of the questions had a high amount of agreement among the two methods, when the participants

were asked if they had ever had sex there was a significant difference. A greater proportion (36%) of participants reported ever having sex in the paper-and-pencil condition compared to the PDA condition (26%). Researchers interpreted the difference as the PDA providing more confidentiality and as being more user-friendly than the paper-and-pencil format.

Alexander and Fisher (2003) used the bogus pipeline methodology to examine if self-reported sexual behavior varied between a traditional anonymous survey and an exposure threat condition in which participants were lead to believe their responses could be viewed by a peer. The bogus pipeline is an apparatus similar to a prototypical lie detector but is not actually used to discern if someone is telling the truth or not. As expected, gender differences were most salient in the exposure threat condition where males reported an average of 3.7 partners and females reported an average of 2.6 partners. Gender differences were least salient in the pipeline condition where males reported an average of 4.0 partners and females reported an average of 4.4 partners. Moreover, females varied their self-reported sexual partners according to condition to a greater degree than males.

Overall, it is very difficult to ascertain whether self-reported sexual behavior is valid or not. Validity is difficult to establish due to the lack of an objective measure. It is difficult to corroborate self-reported sexual behavior with an outside, independent measure. Therefore, the uncertainty of validity may be one possible explanation of the gender difference of self-reported sexual behavior. Another possible explanation is that an individual's perception of social norms may bias self-reports of sexual behavior.

Social Influences on Self-Reported Sexual Behavior

Recent research suggests that social norms may affect self-reports of sexual behavior. For instance, an individual that perceives others to have a high number of sexual partners may

self-report more partners as a consequence. A study conducted by Martens et al (2006) found that college student's perceived the average student had 4.79 partners in the past 12 months however only reported actually having an average of 2.55 sexual partners in the past 12 months. Therefore, evidence does exist showing an overestimate of other's sexual experience, however, it must also be shown that this misperception affects self-reports of sexual behavior.

Fisher (2007) found that college-aged participant's reports of lifetime sexual partners varied according to the sex of the experimenter and a social norms manipulation. In this study, participants received a cover sheet that stated research has shown men to be more sexually permissive and experienced than women, women are more sexually permissive and experienced than men, or men and women are no different in how sexually permissive or experienced they are. When the experimenter was female, men reported significantly more sexual partners (7.1 partners) than females (3.4 partners) when they were told that women are more sexually permissive than men. Men that were told females are more sexually permissive and experienced also reported significantly more sexual partners (7.1 partners) than males that were told men are more sexually permissive and experienced (2.7 partners) when the research experimenter was female.

However, it should be noted that true random assignment was not used for the sex of experimenter condition. Initially, only female researchers were used. When data was analyzed the researchers found that men were reporting a large number of sexual partners when told that women were more sexually permissive than men. Subsequently, the researchers started using male experimenters. Thus, participants that had a female researcher had no chance of being in the male experimenter condition. Due to this, true random assignment was not used for the sex of experimenter condition.

In another study, Fisher (2009) examined if verbally conveyed social norms affected self-reported sexual behavior. Participants overheard a casual conversation between the experimenter and a confederate that was sexually permissive, neutral, or conservative in context. Results showed that males reported significantly different number of lifetime partners according to condition. Males reported an average of 2.87 in the conservative condition, 6.25 in the neutral condition, and 4.74 in the permissive condition. Males also reported a significantly different age of first intercourse according to condition with an average age of 17.1 years old in the conservative condition, 16.3 years old in the neutral condition and 16.0 in the permissive condition.

In summary, research has supported that an individual's perception of social norms does influence their self-reported sexual behavior. When an individual perceives the social norm to be sexually conservative, they tend to report fewer partners and a later age of first intercourse. When an individual perceives the social norm to be sexually liberal, they tend to report more partners and an earlier age of first intercourse. In addition, males seem to be more influenced than females by the effects of perceived social norms on self-reported sexual behavior. This bias may explain the gender difference in self-reports of sexual behavior.

The Present Study

The present study is designed to investigate the effects of an individual's perception of social norms on self-reported sexual behavior. Since this study examines if a person's self-reported sexual behavior can be biased, the present study is examining the validity of self-reported sexual behavior. For instance, a person that perceives the social norm to be sexually liberal and subsequently reports more sexual partners than if they perceived the social norm to be sexually conservative is not reporting a valid number of lifetime partners.

Although the study design is not a traditional test of validity, we argue that due to the nature of self-reported sexual behavior, this design is one way validity can be ascertained. Firstly, there is no gold standard measure which can corroborate self-reported sexual behavior. The use of the presence or absence of an STD as a biomarker has interesting implications for validity but cannot discern whether the STD was obtained via penile-vaginal intercourse or through other modes (i.e. oral sex). Furthermore, sexual behavior is a concrete number and any manipulation should theoretically not have an impact on self-reports. Attitudes, conversely, can be fluid and has been well documented that they may change according to the situation. Thus, our research design cannot test the validity of fluid constructs like attitudes but can test the validity of concrete behaviors like self-reported sexual behavior.

There are alternative explanations that would question whether or not the present study truly examines the validity of self-reported sexual behavior. For example, construal could explain how a person's perception of social norms biases their self-reports. A person may interpret a past sexual encounter as not being a sexual partner but then in a different situation may reinterpret the sexual encounter as being a sexual partner. Therefore, the number of sexual partners may not as concrete as initially thought. If a person reinterprets a past sexual encounter according the situation or social norms, there is some fluidity for lifetime sexual partners.

Social norms in this study were presented in three different contexts: sexually conservative, moderate, and liberal. Additionally, social norms were presented as coming from two different sources: quotations from other students and a research statement. Participants were presented with a cover sheet that contained either results from fictitious research or quotations that were created from a group of previous participants that were presented as coming from interviews from other university students.

The difference between this study and previous studies that examined social norms biases in self-reported sexual is that the present study used a high amount of experimental control. In the Fisher (2009) study, for instance, the social norms were conveyed in manner that may have a high amount of external validity but at the expense of internal validity. Therefore, the present study is an attempt to use a high amount of experimental control in order to gain internal validity at the expense of external validity.

Previous research has shown that males are more likely than females to report a different number of sexual partners when presented with different social norms. However in the bogus pipeline study, females were more likely than males to report different number of lifetime partners according to condition. Since the present study examines the effects of social norms, it was predicted that males would be more will be self-report different number of sexual partners according to condition. Specifically, it was predicted that males would report the most partners in the sexually liberal condition and report the fewest on the sexually conservative condition. Moreover, exploratory analysis were done of whether condition source (quotations coming from interviews or research) has an impact on self-reported sexual behavior.

Methods

Preliminary Study 1 – Generation of Quotations

Participants. For this preliminary study, a total of 15 undergraduate participants were recruited from a Midwestern university and received course credit in an Introductory Psychology course for participating. Of the participants, 46.67% were male and 53.33% were female with an average age of 25.8 years old. Additionally, 20% participants were African American, 66.67% were White, and 13.33% were Asian.

Procedure. Participants were asked to imagine they were an average university student and that an interviewer asked “How would you describe the sexual behavior of college students?” Then, they were asked to write their response to the question in the form of a quotation. Furthermore, participants were told to form the quotation in three contexts: sexually conservative, moderate, and liberal. In each of the three contexts, participants were asked to write three quotations for a total of 9. The participants were also told that the quotations did not need to reflect how they truly view college student’s sexual behavior.

Results. There was a total of 45 sexually conservative, 45 moderate, and 43 liberal quotations generated by participants.

Preliminary Study 2 – Rating of Quotations

Participants. For this preliminary study, a total of 17 undergraduate participants were recruited from a Midwestern university and received course credit in an Introductory Psychology course for participating. 58.82% were male and 41.18% female with an average age of 20.8 years old. Furthermore, 11.76% of the participants were African American, 70.59% were White, 17.65% were Asian, and 5.88% were Hispanic.

Procedure. Using a subset of the quotations derived from Study 1, 43 quotations were used with 15 sexually conservative, 13 moderate, and 15 liberal. The quotations were placed in one of the three contexts according to which context the participants from Study 1 wrote them under. Quotations were excluded from Study 2 if they contained context relating to alcohol use, pregnancy, or STIs. Quotations were included in Study 2 if they contained context relating to the sexual behavior of the average university student. Moreover, liberal and conservative quotations were combined in order to generate five of the moderate quotations. For example, the

conservative quotation, “OSU students typically are in love with their partner and have only had sex with them” was combined with the liberal quotation, “OSU students seem likely to change their sexual partners frequently” to create the moderate quotation, “While there are OSU students typically are in love with their partner and only had sex with them, there are also OSU students that change sexual partners quite often.”

Participants were handed a form with the quotations and told that a previous group of students at the university made the quotations. Additionally, participants were told the quotations were intended to describe the sexual behavior of other university students. Then, participants were asked to rate how sexually conservative, moderate, or liberal they thought the quotations were by circling one of the seven choices on the Likert scale for each quotation. Finally, participants handed their completed form to the research assistant and were given a debriefing statement.

Measures. The degree to which each quotation was sexually conservative, moderate or liberal was measured using a 7-point Likert scale ranging from -3 (“Very Conservative”) to 3 (“Very Liberal”) with the midpoint at 0 (“Moderate”).

Results. The four most sexually conservative, moderate, and liberal quotations according to the average participants’ rating and the lowest standard deviation were chosen for use in the main study. The four sexually conservative quotations had a mean of -1.87 (SD = 0.28). The four sexually moderate quotations had a mean of 0.029 (SD = 0.059). The four sexually liberal had a mean of 1.69 (SD = 0.22). For a list of the quotations used in the main study and their individual mean rating and standard deviation, see Appendix C. For the research statement used in the study, see Appendix D.

Main Study

Participants. For the main study, 204 participants were recruited from a Midwestern university in an Introductory Psychology course and received course credit. In order to be eligible, participants must have graduated high school in 2011, be living away from home, not pregnant, and not married or engaged. Additionally, to keep the sexuality questionnaire homogenous participants must be heterosexual.

Procedure. Participants were randomly assigned to one of the six conditions. Participants received either quotations or fictitious research results both of which described the sexual behavior of the average university student. The quotations and research results were also presented in one of three contexts: sexually conservative, moderate, or liberal.

After signing the consent form and before receiving the sexuality questionnaire, participants were given a cover sheet that described the purpose of the study. Participants were told the purpose of the study was to measure the sexual behavior of first year university students. The cover sheet also contained either 4 quotations or the fictitious research results that were sexually conservative, moderate, or liberal in context. On the cover sheet, participants were asked to rate how sexually conservative, moderate, or liberal they thought the sexual behavior of the average university student was according to the quotations or the study results. This was measured using a 7-point Likert scale ranging from “Very Conservative” to “Very Liberal” with a midpoint of “Moderate” and having participants circle one of the seven choices. For all three contexts, the quotations were arranged randomly. To counter balance any potential order effect, half the participants received the quotations in reverse order.

Approximately five minutes after all the participants received the cover sheet, the research assistant went to each participant individually to collect the cover sheet and were given

the sexuality questionnaire. It took approximately 30 minutes for participants to complete the sexuality questionnaire. After the participants were finished, they handed the sexuality questionnaire to the research assistant and were given a debriefing statement which explained how the student quotations were made and the research results were fictitious.

Measures¹

Lifetime Sexual Partners. Lifetime sexual partners was measured by asking the participants the number of partners in regards to sexual intercourse, giving oral sex, receiving oral sex, and anal sex. Sexual intercourse was defined as when the male inserts his penis into the female vagina. Giving oral sex was defined as mouth contact with the male penis/female vagina to orgasm. Receiving oral sex was defined as male/female mouth contact with your penis/vagina to orgasm. Anal sex was defined as when the male inserts his penis into the female anus. Only heterosexual experience was measured so males were only asked questions relating to sexual contact with females and females were only asked about sexual contact with males. In addition, participants were asked to distinguish sexual partners they had while living at home before college from sexual partners while living away from home during college.

Age of First Sex. Age of first sex was measured by asking the participants at what age in years and months did they engage in first consensual sexual intercourse, giving oral sex, receiving oral sex, and anal sex.

Sexual Experience. Sexual experience was measured using a modified version of the heterosexual experience scale of Zuckerman's Human Sexuality Questionnaire (Zuckerman,

¹ Not all measures used in this section were analyzed in the results section. They are mentioned in the measures section to inform the reader that the present study was part of a larger study. For the separate male and female questionnaires used in the main study, see Appendix E.

1988). This scale asks participants the number of partners they have engaged in a specific sexual behavior such as “Kissing with tongue contact” and “Sexual intercourse, face-to-face, with female on top.” The scale was modified from the original configuration to a more open-ended format in which the participants placed the number of partners they have engaged in the behavior instead of selecting from a range of times they have engaged in the behavior. Also, if the participant had 10 or more partners they simply wrote “10+.” See Appendix C for sexual experience measure.

Sexual Attitudes. Sexual attitudes was measured using the Permissiveness and Instrumentality subscale of the Sexual Attitudes Scale (Hendrick & Hendrick, 1987) which consists of 10 items that measures the degree of liberal sexual beliefs. Responses were measured on a 5-point Likert scale ranging from “Strongly Agree” to “Strongly Disagree” with higher scores indicating a greater degree of sexually permissive attitudes. Sample scale items include “It is okay for sex to be just good physical release” and “Casual sex is acceptable.”

Gender Conformity. Gender conformity was measured using the Conformity to Masculine Norms Inventory (CMNI) for males (Mahalik, 2003) and the Conformity to Feminine Norms Inventory (CFNI) for females (Mahalik, 2005). For males, three subscales were used: Winning (10 items), Power over Women (9 items), and Playboy (12 items). Power over Women and Playboy were used since they deal with sexuality while Winning was used since it correlated best with the scale total score. Power over Women measures the masculine norm of controlling women or treating them as inferior. Playboy measures the masculine norm of having many sexual partners and having sex for physical release as opposed to emotional involvement. Winning measures the masculine norm of placing high importance on winning.

For females, three subscales were used: Have Nice Relationships (18 items), Sexual Fidelity (10 items), and Involvement in Romantic Relationship (9 items). Responses were measured for both males and females using a 4-point Likert scale ranging from “Strongly Disagree” to “Strongly Agree.” See Appendix A for the gender conformity measure. Have Nice Relationships measures the feminine norm of being friendly and nice in social relationships. Sexual Fidelity measures the feminine norm of associating shame and guilt with casual sex or having many sexual partners. Involvement in Romantic Relationships measures the feminine norm of maintaining and placing importance on romantic relationships.

Social Desirability. Social Desirability was measured using a short version of the Marlowe-Crowne Social Desirability Scale (Strahan, 1972). The short version contains 10 items from the original scale. Responses were measured using a “True/False” format.

Results

Rating of Condition Context. Participants rated the presented social norms on a 7-point Likert scale with scores ranging from -3 (Very Conservative) to 3 (Very Liberal) with a midpoint at 0 (Moderate). In order to find out if there were differences in ratings across conditions, a 2 (Sex of Participant) x 2 (Condition Source) x 3 (Social Norms) was run using the participant’s rating as the dependent variable. Results showed there was a significant main effect of social norms, $F(1, 203) = 33.3, p < 0.001$. Post-hoc analyses using Fishers Least square differences (LSD) revealed that the conservative condition ($M = -0.32, SD = 1.40$) was significantly different ($p < 0.001$) from the moderate condition ($M = 0.48, SD = 0.77$) and was significantly different ($p < 0.001$) from the liberal condition ($M = 1.29, SD = 0.97$). Additionally, the liberal condition was significantly different ($p < 0.01$) from the moderate condition.

There was a significant two-way interaction between social norms and condition source, $F(2, 203) = 4.24, p = 0.016$. For the quotations group, there was a simple effect of social norms, $F(2, 103) = 32.4, p < 0.001$. Fisher's LSD showed the conservative condition ($M = -0.79, SD = 1.51$) was rated significantly different ($p < 0.001$) from the moderate condition ($M = 0.41, SD = 0.72$) and was rated significantly different ($p < 0.001$) from the liberal condition ($M = 1.42, SD = 0.99$). The liberal condition was also rated significantly different ($p < 0.001$) from the moderate condition. For the research group, there was a simple effect of social norms, $F(2, 99) = 8.95, p < 0.001$. Fisher's LSD showed that the conservative condition ($M = 0.14, SD = 1.14$) was rated significantly different ($p < 0.001$) from the liberal condition ($M = 1.16, SD = 0.93$). The liberal condition was also rated significantly different ($p = 0.015$) from the moderate condition ($M = 0.56, SD = 0.82$).

Results also revealed a significant three-way interaction, $F(2, 203) = 4.99, p = 0.008$. Further analysis showed that for males there was a simple interaction between condition source and social norms, $F(2, 93) = 10.2, p < 0.001$. For males in the quotations group, there was a significant simple effect of social norms, $F(2, 51) = 45.5, p < 0.001$. Fisher's LSD revealed that the conservative condition ($M = -1.32, SD = 0.95$) was rated significantly different ($p < 0.001$) from the moderate condition ($M = 0.56, SD = 0.73$) and was rated significantly different ($p < 0.001$) from the liberal condition ($M = 1.58, SD = 1.00$). The liberal condition was also rated significantly different ($p < 0.001$) from the moderate condition. For participants in the quotations and conservative condition, there was a significant effect of sex of participant, $F(1, 33) = 9.37, p = 0.004$. Males ($M = -1.32, SD = 0.95$) rated the condition as more conservative than females ($M = 0.17, SD = 1.90$).

Overall, the manipulation did influence participant's perception of other's sexual behavior. If the social norm was presented as being sexually liberal, that participant was likely to rate the social norm as sexually liberal. In the research condition, however, the conservative condition was not rated significantly different from the moderate condition. In fact, the conservative condition was rated as being moderate by the participants. This is true for both males and females.

For the quotations group, there was a gender difference. For males, all the conditions were rated significantly different from each other. For females, the conservative condition was not rated significantly different from the moderate condition. Again, the conservative condition was rated as being moderate by the participants. Additionally, males perceived the conservative condition as being more conservative than females. For means and standard deviations of context ratings, refer to Table 1 in Appendix A.

Lifetime Sexual Partners. Lifetime sexual partners were measured by asking participants with how many partners they engaged in sexual intercourse. Sexual intercourse was defined as when the male inserts his penis into the female vagina. In order to find out if participant's self-reported a different number of sexual partners according to condition, data was analyzed using a 2 (Sex of Participant) x 2 (Condition Source) x 3 (Social Norms) between-subjects ANOVA. Since the distribution was skewed towards having less sexual partners, a logarithmic transformation was done in order to make the distribution more normal. However, means and standard deviations are reported without the logarithmic transformation.

There were no significant main effects for lifetime sexual partners. There was an interaction between sex of participant and social norms that was close to significance, $F(2, 203) = 2.64$, $p = 0.074$, $\eta^2 = 0.025$. Further analysis revealed that in the moderate condition, there was

an effect of sex of participant close to significance with males reporting more partners than females, $F(1, 72) = 3.85$, $p = 0.054$, $\eta^2 = 0.051$. For means and standard deviations of lifetime partners, see Table 2 in Appendix A. For graphs of lifetime partners as function of condition source, see Figure 1 for males and Figure 2 for females in Appendix B.

Gender Conformity. Since the effects of the social norms and condition source on self-reported lifetime partners could vary depending on whether an individual conforms to gender norms or not, further analyses were conducted using a median split of gender conformity. Those above the median were categorized as high gender conformers and those below the median were categorized as low gender conformers. For males, the median score on the Conformity to Masculine Norms Inventory was 54 with scores potentially ranging from 0 to 124. For females, the median score on the Conformity to Feminine Norms Inventory was 84 with scores potentially ranging from 0 to 148.

Data was analyzed using a 2 (Gender Conformity) x 2 (Condition Source) x 3 (Social Norms) between-subjects ANOVA. Data was analyzed separately for males and females. There were no significant main effects or interactions for female gender conformity. For males, there was an interaction between gender conformity and social norms close to significance, $F(2, 92) = 2.55$, $p = 0.084$, $\eta^2 = 0.052$. For males high in gender conformity, there was a simple effect of social norms, $F(2, 48) = 3.90$, $p = 0.028$, $\eta^2 = 0.189$. Fisher's LSD pairwise comparison showed that high conforming males in the liberal condition ($M = 4.08$, $SD = 3.96$) reported significantly ($p = 0.02$) more partners than high gender conforming males in the conservative condition ($M = 0.95$, $SD = 1.16$). For means and standard deviations of lifetime partners as a function of gender conformity, see Table 3 for males and Table 4 for females in Appendix A. For a graph of

lifetime partners as a function of gender conformity, see Figure 3 for males and Figure 4 for females in Appendix B.

Sexual Experience. Sexual experience was measured using the heterosexual experience scale of the Zuckerman's Human Sexuality Questionnaire with scores potentially ranging from 0 to 170. Higher scores indicate more sexual experience. In order to find out if self-reported sexual experience was influenced by condition, data was analyzed using a 2 (Sex of Participant) x 2 (Condition Source) x 3 (Social Norms) between-subjects ANOVA. There were no significant main effects. There was a significant interaction between sex of participant and social norms, $F(2, 203) = 3.74, p = 0.025, \eta^2 = 0.034$. Further analysis revealed that for males, there a simple effect of social norms, $F(2, 93) = 3.49, p = 0.035, \eta^2 = 0.071$. Fisher's Least Square Difference (LSD) showed that males the conservative condition ($M = 34.5, SD = 31.5$) reported significantly less ($p = 0.033$) sexual experience than males in the moderate condition ($M = 55.7, SD = 41.8$) and significantly less ($p = 0.023$) than males in the liberal condition ($M = 59.4, SD = 50.9$).

There was also a two-way interaction between social norms and condition source that was close to significance, $F(2, 203) = 2.46, p = 0.088, \eta^2 = 0.022$. For the quotations group, there was a simple effect of social norms close to significance, $F(2, 103) = 2.52, p = 0.086, \eta^2 = 0.047$. For the quotations group, Fisher's LSD revealed that those in the liberal condition ($M = 58.2, SD = 44.0$) reported significantly more ($p = 0.043$) sexual experience than those in the moderate condition ($M = 39.8, SD = 34.7$) and the difference between the conservative condition ($M = 40.9, SD = 33.0$) was close to significance ($p = 0.064$). For means and standard deviations of sexual experience, see Table 5 in Appendix A.

Sexual Attitudes. Sexual attitudes were measured using the Permissiveness and Instrumentality subscale of the Sexual Attitudes Scales with scores potentially ranging from 0 to 108. Higher scores indicate more permissive and liberal sexual attitudes. In order to find out if sexual attitudes was influenced by condition, data was analyzed using a 2 (Sex of Participant) x 2 (Condition Source) x 3 (Social Norms) between-subjects ANOVA. There was only a main effect of sex of participant, $F(1, 194) = 31.5, p < 0.001, \eta^2 = 0.136$. For means and standard deviations of sexual attitudes, see Table 6 in Appendix A.

Discussion

The present study was designed to test whether or not an individual's perception of other's sexual behavior biased their own self-reported sexual behavior. Participants in this study filled out a sexuality questionnaire that contained a cover sheet. The cover sheet had either quotations created by participants from a preliminary study in which participants were told that the quotations came from interviews or fictitious research results. Both the quotations and research results were sexually conservative, moderate, or liberal in context.

For lifetime sexual partners, in general, there were no significant effects. However when analyzing the data using gender conformity, significant results did emerge for males. When the social norms were presented as being liberal, high gender conforming males reported significantly more partners than when the social norms were presented as being conservative. Significant results also were obtained when males were asked about their overall sexual experience. When social norms were presented as being conservative, males reported less sexual experience than when the social norms were presented as being moderate or liberal.

Additionally, when the social norms were presented as being liberal, males reported more sexual experience than when the social norms were presented as being moderate.

An important consideration when interpreting the results is the effect of manipulation. Did the manipulation affect participant's perception of other's sexual behavior? For females, the conservative condition was perceived as being moderate. Moreover, males in the research condition perceived the conservative condition as being moderate as well. Only males in the quotation's condition perceived the conservative condition as being conservative. In addition for both males and females, the liberal condition was only rated as being between "somewhat liberal" and "liberal".

Thus, the manipulation had mixed results on participant's perceptions of other's sexual behavior which may explain why significant results were not obtained for lifetime sexual partners. With the exception of males in the quotations condition, the current study design was unable to influence an individual's perception of social norms in the conservative condition. It may be the case that participant's were not influenced by the conservative condition because a college student's natural inclination is to think that the sexual norms are liberal. This should not be surprising since there are a plethora of popular media examples portraying college as sexually permissive (i.e. *Animal House*) and very few, if any, portraying college as being sexually conservative.

Another reason why there were not significant results for lifetime sexual partners was because of a low number of participants. There may have been not enough power to detect an effect. This is evidenced by males in the quotations condition. Although participants in this condition fit the predicted pattern and there was a small effect size, the three-way interaction was not significant. For a graphical depiction of this, see Figure 1 in Appendix B. Having more

participants would increase power and potentially detect a significant difference between conditions.

Implications. Results indicate that high gender conforming male's self-reported sexual behavior is biased by their perceptions of others sexual behavior. This is consistent with previous research. Both in the Fisher (2007) and the Fisher (2009) studies, it was found that male's self-reported lifetime partners was biased by a social norms manipulation. Furthermore in the Fisher (2007) study, the effect was more pronounced among high gender conforming males. The only study to bias female self-reported lifetime partners was the Alexander and Fisher (2003) bogus pipeline study which did not use a social norms manipulation.

Taking into consideration the present study and previous research, a possible explanation for the gender difference in self-reported sexual behavior is that some males are over-reporting. Specifically, high gender conforming males are most likely to change their number of partners according to their perception of other's sexual behavior. This, however, does not rule out the possibility that females are under-reporting. Perhaps another study design using different manipulations could examine under what conditions females would vary their self-reported sexual behavior.

Future Research. An important area of future research would be to directly test what psychological mechanism causes male's perception of social norms to bias their self-reported sexual behavior. One possible explanation is self-presentation. When they perceive other's sexual experience to be high, gender conforming males could use self-presentation strategies to be perceived as masculine by seeming to have a high amount of sexual experience. Another explanation could be construal. When they perceive social norms to be sexually liberal, males may reinterpret a past sexual encounter as being a sexual intercourse partner when they

otherwise may not have interpreted the previous sexual encounter as being a sexual intercourse partner.

Another area of future research would be to examine why female's self-reported sexual behavior is not affected by social norms manipulations. The only study to bias female's self-reported sexual behavior was the bogus pipeline study in which participants thought they were attached to a functional lie detector apparatus. Thus, it may be that females use self-presentation strategies to be perceived by others as being honest and truthful.

Females also may bias their self-reports when the social norms are presented as coming from other females. For example instead of the cover sheet stating "Most students have a high number of sexual partners and do not see it as a problem", it would state "Most female students have a high number of sexual partners and do not see it as a problem." Making the manipulation gender-specific may bias female self-reports because, according to Baumeister (2002), females are largely responsible for monitoring other female's sexual behavior. Therefore, if social norms are presented as other females (as opposed to college students in general) being sexually permissive, female participants may in turn report more sexual experience than they would otherwise.

Limitations. There are important limitations to consider when interpreting the results. First, there is a potential confound regarding the sex of experimenter. For the present study, only a male ran the experimental sessions. Thus, there is potential that this confounded the results since female experimenters were did not run any experimental sessions. The only study to find significant results of experimenter sex was the Fisher (2007) study. However, true random assignment was not used to manipulate sex of experimenter, thus, the findings are not robust. Other studies (see Winer, 1988) have examined experimenter effects on self-reported sexual

behavior and have not found any significant results. Regardless, it is best practice to counterbalance for sex of experimenter by having both males and females run experimental sessions to avoid any confounds.

Another potential limitation is the use of the quotations and research statement manipulation. Not only did the quotations and research statement differ according to the source participants were told they came from but they also differed in their context. By context, it is meant they differed in their wording. For example, the quotation “College students who have been dating for a long time have had sex” should have a research statement equivalent of “Research shows that college students who have been dating for a long time have had sex.” In the previous example, the only difference between the quotation and the research statement was the source participants are told they came from: either from interviews or research. With the current study design, they differed in source and in context or their wording. For example, the conservative quotation “In my experience at Ohio State, students are not very sexually promiscuous” is different from the conservative research statement “Recent studies conducted at Ohio State have shown that the social environment is less sexually permissive than in the past. For example, OSU students today are less likely to engage in sexual intercourse than in the past” not only in where the participants are told they came from but also in their wording. Thus, a potential confound could be the difference between the quotations and research statement could result not only from their source but also their context or wording.

References

- Alexander, C. S. , Somerfield, Mark R. , Ensminger, M. E. , Johnson, K. E. , & Young, K. J. (1993). Consistency of adolescents' self-report of sexual behavior in a longitudinal study. *Journal of Youth and Adolescence*, 22(5), 455-471.
- Alexander, M. G. , & Fisher, T. D. (2003). Truth and consequences: Using bogus pipeline to examine sex differences in self-reported sexuality. *Journal of Sex Research*, 40(1), 27-35.
- Baumesister, R. F. (2000). Gender differences in erotic plasticity: The female sex drive as socially flexible and responsive. *Psychological Bulletin*, 126(3) , 347-374.
- Baumeister, R. F. , & Twenge, J. M. (2002). Cultural suppression of female sexuality. *Review of General Psychology*, 6(2), 166-203.
- Baumeister, R. F. , Catanese, K. R. , & Vohs, K. D. (2001). Is there a gender difference in strength of sex drive? Theoretical views, conceptual distinctions, and a review of relevant evidence. *Personality and Social Psychology Review*, 5(3), 242-273.
- Brener, N. D. , Billy, J. O. G. , & Grady, W. R. (2003). Assessment of factors affecting the validity of self-reported health-risk behavior among adolescents: Evidence from the scientific literature. *Journal of Adolescent Health*, 43 , 436-457.
- Brener, N. D. , Kann, L. , McManus, T. , Kinchen, S. A. , Sundberg, E. C. , & Ross, J. G. (2002). Reliability of the 1999 Youth Risk Behavior Survey Questionnaire. *Journal of Adolescent Health*, 31, 336-342.

- Centers for Disease Control and Prevention. (2010). Youth Risk Behavior Surveillance – United States, 2009. *Surveillance Summarie*, 59(SS-5), 1-148.
- Chandra, A. , Mosher, W. D. , Copen, C. , & Sionean, C. (2011). Sexual behavior, sexual attraction and sexual identity in the United States: Data from the 2006-2008 National Survey of Family Growth. *National Health Statistics Reports*, 36.
- Fisher, T. D. (2007). Sex of experimenter and social norms effects on reports of sexual behavior in young men and women. *Archives of Sexual Behavior*, 26, 89-100.
- Fisher, T.D. (2009). The impact of socially conveyed norms on the reporting of sexual behavior and attitudes by men and women. *Journal of Experiemental Social Psychology*, 46, 567-572.
- Harris, I. M. (1995). *Messages men hear: Constructing Masculinities*. Bristol, PA: Taylor and Francis.
- Hendrick, S. , & Hendrick, C.. (1987). Multidimensionality of sexual attitudes. *The Journal of Sex Research*, 23(4), 502-526.
- Jaspan, H. B. , Fisher, A. J. , Myer, L. , Mathews, C. , Seebregts, C. , Berwick, J. R. , Wood, R. , & Bekker, L. (2007). Brief report: Methods for collecting sexual behavior information from South African adolescents – a comparison of paper versus personal digital assistant questionnaires. *Journal of Adolescence*, 30, 353-359.
- Jonason, P. K. , & Fisher, T. D. (2009). The power of prestige: Why young men report having more sex partners than young women. *Sex Roles*, 60, 151-159.

- Mahalik, J. R. , Locke, B. D. , Ludlow, L. H. , Diemer, M. A. , Scott, R. P.J. , Gottfried, M. , & Freitas, G. (2003). Development of the conformity to masculine norms inventory. *Psychology of Men and Masculinity*, 4(1), 3-25.
- Mahalik, J. R. , Morray, E. B. , Coonerty-Femiano, A. , Ludlow, L. H. , Slattery, S. M. , & Smiler, A. (2005). Development of the conformity to feminine norms inventory. *Sex Role*, 52, 417-435.
- Martens, M. P. (2006). Differences between actual and perceived student norms: An examination of alcohol use, drug use, and sexual behavior. *Journal of American College Health*, 54(5), 295-300.
- Orr, D. P. , Fortenberry, D. , & Blythe, M. J. (1997). Validity of self-reported sexual behaviors in adolescent women using biomarker outcomes. *Sexually Transmitted Disease*, 24(5) , 261-266.
- Rodgers, J. L. , Billy, J. O. G. , & Udry, J. R.. (1982). The rescission of behaviors: Inconsistent responses in adolescent sexuality data. *Social Science Research*, 11, 280-296. .
- Siegel, D. M. , Aten, M. J. , & Roghmann, K. J. (1998). Self-reported honesty among middle and high school students responding to a sexual behavior questionnaire. *Journal of Adolescent Health*, 23, 20-28
- Singh, S. , Wulf, D. , Samara, R. , & Cuca, Y. (2000). Gender Differences in the timing of first intercourse: Data from 14 countries.. *International Family Planning Perspectives*, 26(1) , 21-28 & 43.

- Strahan, R. , & Gerbasi, K. C. (1972). Short, homogenous versions of the Marlowe-Crowne social desirability scale. *Journal of Clinical Psychology*, 28(2), 191-193.
- Winer, G. A., Makoski, D. , Alpert, H. , & Collins, J. (1988). An analysis of experimenter effects on responses to a sex questionnaire. *Archives of Sexual Behavior*, 17(3).
- Zuckerman, M. (1988). Human Sexuality Questionnaire. In Davis, Clive M. , Yarber, William L. , Bauserman, Robert , Schreer, George , & Davis, Sandra L. (Eds.), *Handbook of Sexuality-Related Measures* (pp. 109-115). Thousand Oaks, CA: Sage Publications.

Appendix A – Tables

Table 1. Means and Standard Deviations for Context Rating as a Function of Participant Sex, Condition Source, and Social Norms

		Conservative		Moderate		Liberal		F
		M (SD)	n	M (SD)	n	M (SD)	n	
Male	Quotation	-1.32 (0.95)	22	0.33 (0.67)	18	1.58 (1.00)	12	45.5
	Research	0.21 (1.12)	14	0.56 (0.73)	16	0.92 (1.08)	12	1.59
Female	Quotation	0.17 (1.90)	12	0.48 (0.75)	21	1.32 (1.00)	19	4.14
	Research	0.10 (1.14)	21	0.56 (0.92)	18	1.32 (0.82)	19	7.90

Table 2. Means and Standard Deviations for Self-Reported Number of Lifetime Sexual Partners as a Function of Participant Sex, Condition Source, and Social Norms

		Conservative		Moderate		Liberal		F	η^2
		M (SD)	n	M (SD)	n	M (SD)	n		
Male	Quotation	1.32 (1.49)*	22	2.28 (4.00)	18	3.75 (2.86)*	12	2.53	0.042
	Research	0.93 (1.14)	14	1.88 (2.13)	16	1.33 (2.50)	12	1.18	0.032
Female	Quotation	2.17 (2.41)	12	0.71 (0.90)	21	1.89 (2.33)	19	2.12	0.040
	Research	1.67 (1.80)	21	1.28 (1.36)	18	1.63 (2.17)	19	0.19	0.003

*p = 0.09

Table 3. Means and Standard Deviations for Self-Reported Number of Lifetime Sexual Partners of Males as a Function of Gender Conformity, Condition Source, and Social Norms

		Conservative		Moderate		Liberal		F	η^2
		M (SD)	n	M (SD)	n	M (SD)	n		
Low	Quotation	1.73 (1.73)	11	3.11 (5.37)	9	1.75 (2.06)	4	0.14	0.005
	Research	1.00 (1.00)	3	1.78 (2.33)	9	0.63 (1.86)	8	1.16	0.078
High	Quotation	0.91 (1.13)*	11	1.63 (1.92)	8	4.75 (4.27)*	8	5.27	0.132
	Research	1.00 (1.25)	10	2.00 (1.85)	8	2.75 (3.40)	4	0.99	0.042

Gender conformity was organized into the high and low dichotomy using a median split. The median value on the Conformity to Masculine Norms Inventory was 54. Scores could range from 0 to 124.

* $p < 0.05$

Table 4. Means and Standard Deviations for Self-Reported Number of Lifetime Sexual Partners of Females as a Function of Gender Conformity, Condition Source, and Social Norms

		Conservative		Moderate		Liberal		F	η^2
		M (SD)	n	M (SD)	n	M (SD)	n		
Low	Quotation	2.83 (2.93)	6	0.89 (1.27)	9	2.90 (2.64)	10	1.92	0.063
	Research	2.00 (2.45)	7	0.89 (1.17)	9	0.67 (0.52)	6	0.97	0.045
High	Quotation	1.50 (1.76)	6	0.58 (0.51)	12	0.78 (1.30)	9	0.62	0.027
	Research	1.46 (1.51)	13	1.63 (1.60)	8	2.00 (2.59)	12	0.10	0.003

Gender conformity was organized into the high and low dichotomy using a median split. The median value on the Conformity to Feminine Norms Inventory was 84. Scores could range from 0 to 148.

Table 5. Means and Standard Deviations for Sexual Experience as a Function of Participant Sex, Condition Source, and Social Norms

		Conservative		Moderate		Liberal		F	η^2
		M (SD)	n	M (SD)	n	M (SD)	n		
Male	Quotation	37.09 (32.60)*	22	57.56 (42.51)	18	79.00 (41.97)*	12	4.53	0.156
	Research	53.56 (42.27)	14	53.56 (42.27)	16	39.83 (50.17)	12	1.19	0.058
Female	Quotation	47.75 (34.02)	12	24.52 (14.74)*	21	45.05 (39.31)	19	3.21	0.116
	Research	36.95 (26.84)	21	40.61 (27.51)	18	42.42 (28.51)	19	0.187	0.007

Measured using the heterosexual experience scale of the Zuckerman's Human Sexuality Questionnaire. Scores could range from 0 to 170 with higher scores indicating more sexual experience.

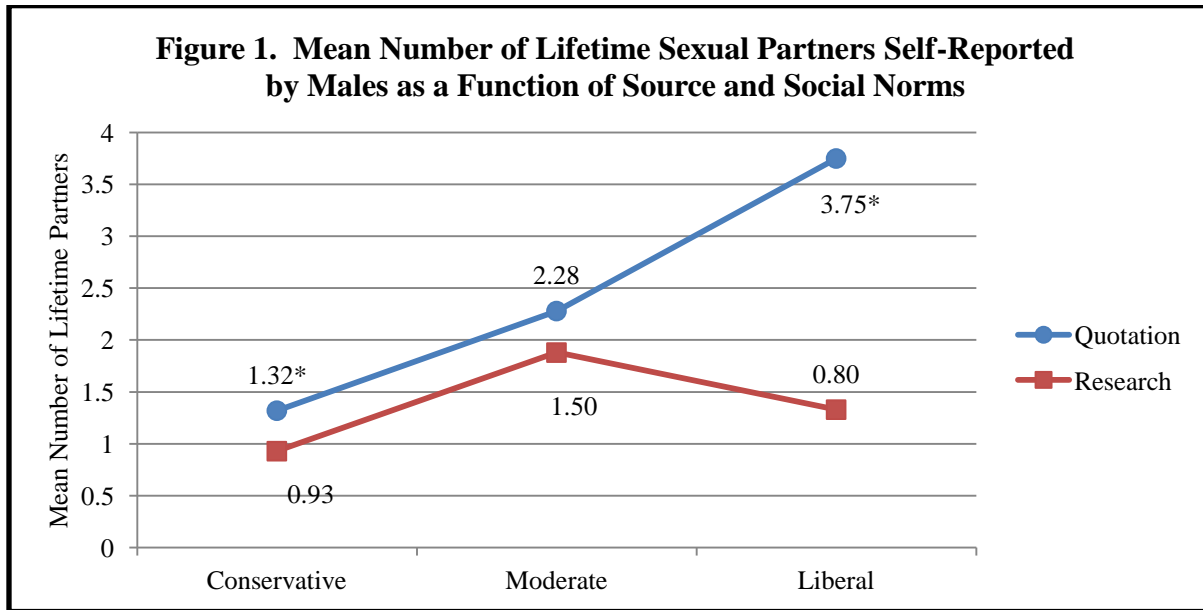
* $p < 0.05$

Table 6. Means and Standard Deviations for Sexual Attitudes as a Function of Participant Sex, Condition Source, and Social Norms

		Conservative		Moderate		Liberal		F	η^2
		M (SD)	n	M (SD)	n	M (SD)	n		
Male	Quotation	68.90 (18.78)	22	82.13 (19.78)	18	79.83 (20.48)	12	2.40	0.095
	Research	70.07 (21.06)	14	76.53 (18.34)	16	80.58 (19.26)	12	0.96	0.048
Female	Quotation	69.00 (16.19)	12	60.57 (14.14)	21	66.78 (15.02)	19	1.47	0.058
	Research	55.00 (13.70)	21	63.13 (14.86)	18	49.42 (15.01)	19	1.38	0.051

Measured using the Permissiveness and Instrumentality subscale of the Sexual Attitudes Scale. Scores could range from 0 to 108 with higher scores indicating more permissive and liberal sexual attitudes.

Appendix B – Figures



Although the 2(Sex of Participant) x 2(Condition Source) x 3(Condition Context) interaction was not significant, males in the quotation group fit the predicted pattern, $F(2, 54) = 2.53$, $\eta^2 = 0.042$, $p = 0.090$.

* $p < 0.05$

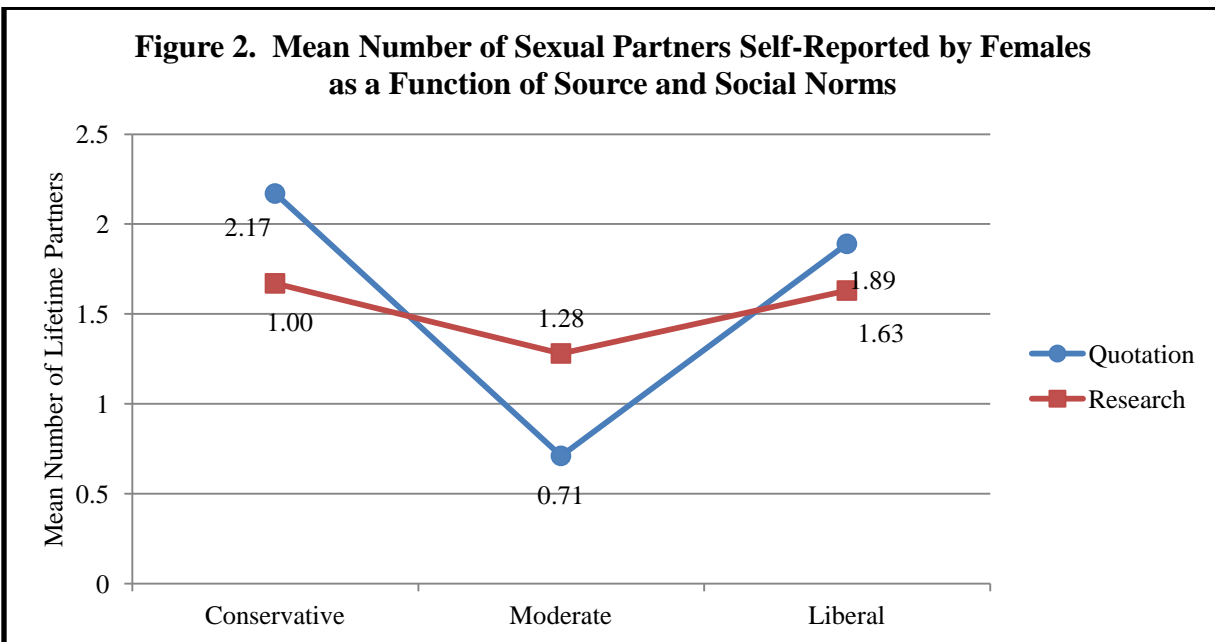


Figure 3. Mean Number of Lifetime Sexual Partners Self-Reported by Males as a Function of Gender Conformity and Social Norms

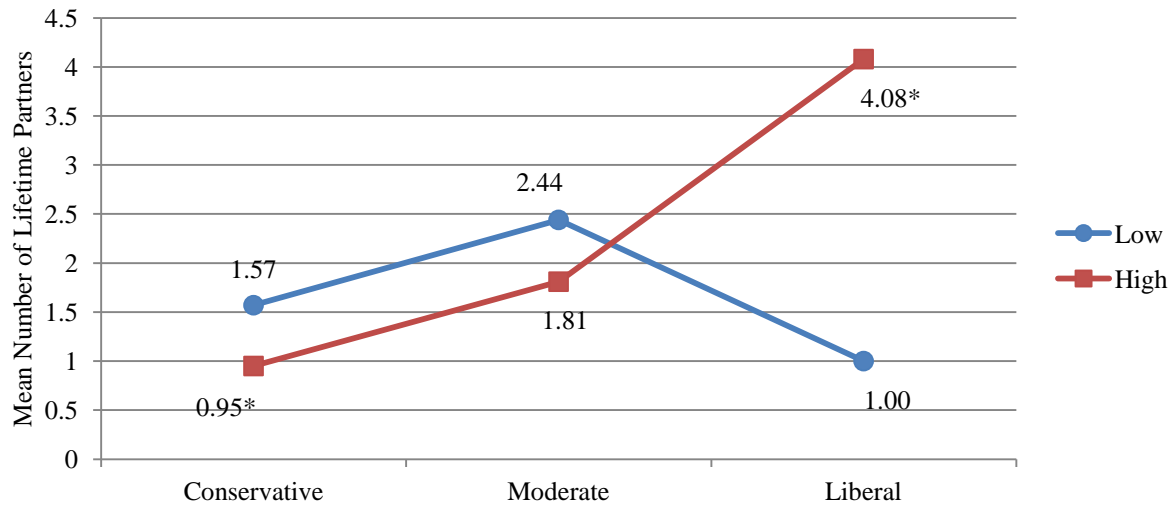
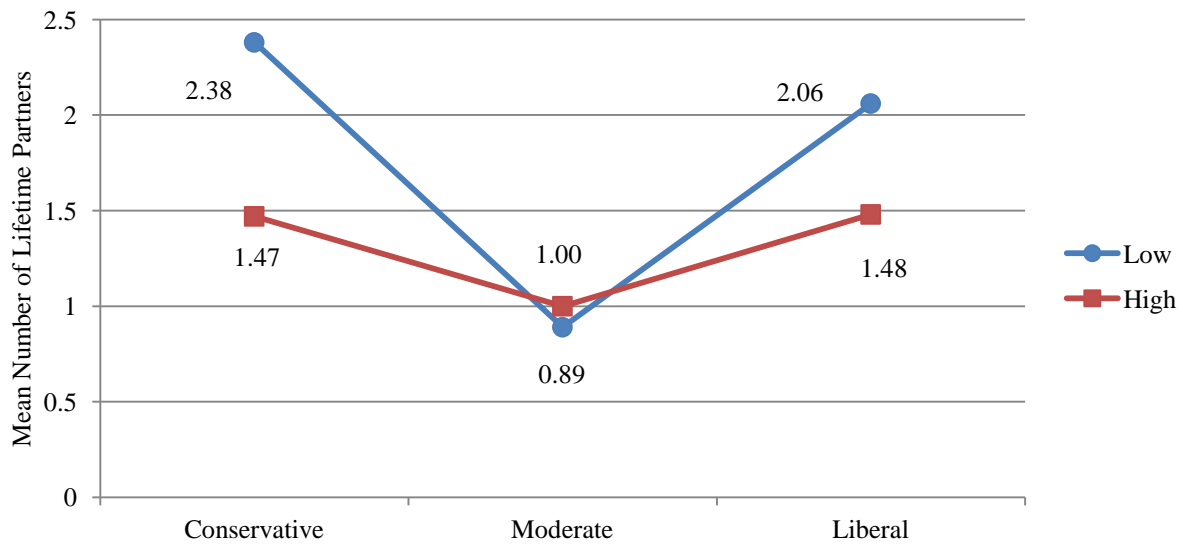


Figure 4. Mean Number of Lifetime Sexual Partners Self-Reported by Females as a Function of Gender Conformity and Social Norms



Appendix C – Quotations

Table 7. Means and Standard Deviations of Conservative Quotations used in the Main Study

	Mean	SD
Due to ethical and moral beliefs, the majority of Ohio State students will wait until marriage to engage in a sexual relationship.”	-2.12	1.11
“At Ohio State, both partners almost always commit to each other before having sexual intercourse.”	-1.53	1.07
“Only OSU students that have been dating for a long time have had sex.”	-2.06	0.9
“In my experience at Ohio State, students are not very sexually promiscuous.”	-1.76	0.903
Overall:	-1.87	0.275
Measured using a 7-point Likert scale ranging from -3 (“Very Conservative”) to 3 (Very Liberal) with the midpoint 0 (“Moderate”).		

Table 8. Means and Standard Deviations of Moderate Quotations used in the Main Study

	Mean	SD
"Some OSU students have a high number of sexual partners, while others choose to remain sexually abstinent and wait until marriage."	0.0588	1.03
"In my experience at Ohio State, students seem split as to whether they engage in casual sex or prefer a committed relationship."	0.0588	1.14
"In my experience, committed partnerships and one-night stands are both equally common among OSU students."	0.0588	1.30
"In my experience talking to friends going to other universities, OSU students do not engage in anymore or any less sexual activity than any other college."	-0.0588	0.659
Overall:	0.0294	0.0588
Measured using a 7-point Likert scale ranging from -3 ("Very Conservative") to 3 (Very Liberal) with the midpoint 0 ("Moderate").		

Table 9. Means and Standard Deviations of Liberal Quotations used in the Main Study

	Mean	SD
“Almost all of OSU students have engaged in some form of casual sexual activity”	2.0	0.707
“At Ohio State, having many different sexual partners is widely accepted”	1.53	1.62
“One-night stands occur all the time at Ohio State with many different people, it’s no big deal.”	1.71	1.83
“Most students at OSU have a high number of sexual partners and do not see it as a problem.”	1.53	1.55
Overall:	1.69	0.222
Measured using a 7-point Likert scale ranging from -3 (“Very Conservative”) to 3 (Very Liberal) with the midpoint 0 (“Moderate”).		

Appendix D – Research Statement

Fictitious Research Results – Sexually Conservative

Recent studies conducted at Ohio State have shown that the social environment is less sexually permissive than in the past. For example, OSU students today are less likely to engage in sexual intercourse than in the past. We would like to find out if the same is true for recent freshman entering Ohio State.

Fictitious Research Results – Sexually Moderate

Recent studies conducted at Ohio State have shown that the social environment is no more or less sexually permissive than in the past. For example, OSU students today are no more or less likely to engage in sexual intercourse than in the past. We would like to find out if the same is true for recent freshman entering Ohio State.

Fictitious Research Results – Sexually Liberal

Recent studies conducted at Ohio State have shown that the social environment is more sexually permissive than in the past. For example, OSU students today are more likely to engage in sexual intercourse than OSU students in the past. We would like to find out if this is true for recent freshman entering Ohio State.

Appendix E – Questionnaire Booklet

Male Version

Instructions

The following 8 pages contain questions that are divided into 5 separate sections. Please read and follow the instructions for each section carefully.

Sexual Experience

The following 29 questions relate to sexual experience. Please follow the instructions in each of the sections. We are going to ask you about your sexual experience before and after college. Only count a partner once either before college or after college.

Please answer the following by placing a number on the line provided. Sexual intercourse is when the male inserts his penis into the female vagina. If you have not engaged in the behavior, place an "X" on the lines provided.

- 1) What age (in months and years) were you at the time of first consensual sexual intercourse?
: _____ years _____ months
- 2) How many different sexual intercourse partners have you had while living at home before college? : _____
- 3) How many different sexual intercourse partners have you had while living away from home during college? : _____

Please answer the following by placing a number on the line provided. Giving oral sex is defined as contact of your mouth with the female vagina to orgasm. If you have not engaged in the behavior, place an "X" on the lines provided.

- 4) What age (in months and years) were you at the time of giving first consensual oral sex? :
_____ years _____ months
- 5) How many different partners have you given oral sex to while living at home before college? :

- 6) How many different partners have you given oral sex to while living away from home during college? :

Please answer the following by placing a number on the line provided. Receiving oral sex is defined as female mouth contact with your penis to orgasm. If you have not engaged in the behavior, place an "X" on the lines provided.

- 7) What age (in months and years) were you at the time of receiving first consensual oral sex?
: _____ years _____ months
 - 8) How many different partners have you received oral sex from while living at home before college? : _____
 - 9) How many partners have you received oral sex from while living away from home during college? : _____
-
-

Please answer the following by placing a number on the line provided. Anal sex is defined as when the male inserts his penis into the female anus. If you have not engaged in the behavior, place an "X" on the lines provided

-
- 10) What age (in months and years) were you at the time of first consensual anal sex?
: _____ years _____ months
- 11) How many different anal sex partners have you had while living at home before college? :

- 12) How many different anal sex partners have you had while living away from home during college? : _____
-

For the following 16 statements, with how many different partners have you engaged in the behavior described? Place the number of different partners you have engaged in the behavior on the line. If you have engaged in the behavior 10 or more different partner write "10+" on the line provided.

- | | |
|--|-------|
| 13) Kissing without tongue contact | _____ |
| 14) Kissing with tongue contact | _____ |
| 15) Petting with clothes on | _____ |
| 16) Feeling covered female breasts | _____ |
| 17) Feeling nude female breast | _____ |
| 18) Petting (groping) with clothes off | _____ |
| 19) You lying prone with female, petting (groping) without penetration of her vagina | _____ |
| 20) Mouth contact with female breast | _____ |
| 21) Female manipulation of your penis | _____ |
| 22) Manipulation of female genitalia | _____ |
| 23) Sexual intercourse in face-to-face position with you on top | _____ |
| 24) Female mouth contact with your penis | _____ |
| 25) Mouth contact with female genitalia | _____ |
| 26) Sexual intercourse, face-to-face, with female on top | _____ |
-

27) Sexual intercourse, face-to-face, in side position _____

28) Sexual intercourse, entering vagina from the rear _____

29) Sexual intercourse, your penis entering the female's anus _____

Sexual Attitudes

The following are 27 statements relate to attitudes towards sex. Circle the number that indicates the degree of your agreement/disagreement with each statement.

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
30) Casual sex is acceptable	1	2	3	4	5	6
31) I would like to have sex with many partners	1	2	3	4	5	6
32) One-night stands are sometimes very enjoyable	1	2	3	4	5	6
33) It is okay to have ongoing sexual relationships with more than one person at a time	1	2	3	4	5	6
34) It is okay to manipulate someone into having sex as long as no future promises are made	1	2	3	4	5	6
35) Sex as a simple exchange of favors is okay if both people agree to it	1	2	3	4	5	6
36) The best sex is with no strings attached	1	2	3	4	5	6
37) Life would have fewer problems if people could have sex more freely	1	2	3	4	5	6
38) It is possible to enjoy sex with a person with a person and not like that person very much	1	2	3	4	5	6
39) Sex is more fun with someone you don't love	1	2	3	4	5	6

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
40) It is alright to pressure someone into having sex	1	2	3	4	5	6
41) Extensive premarital sexual experience is fine	1	2	3	4	5	6
42) Extramarital affairs are alright as long one's partner doesn't know about them	1	2	3	4	5	6
43) Sex for its own sake is alright	1	2	3	4	5	6
44) I would feel comfortable having intercourse with my partner in the presence of other people	1	2	3	4	5	6
45) I do not need to be committed to a person to have sex with him/her	1	2	3	4	5	6
46) Prostitution is acceptable	1	2	3	4	5	6
47) It is okay for sex to be just good physical release	1	2	3	4	5	6
48) Sex without love is meaningless	1	2	3	4	5	6
49) People should at least be friends before they have sex together	1	2	3	4	5	6
50) In order for sex to be good, it must also be meaningful	1	2	3	4	5	6
51) Sex is best when you let yourself go and focus on your own pleasure	1	2	3	4	5	6
52) Sex is primarily the taking of pleasure from another person	1	2	3	4	5	6
53) The main purpose of sex is to enjoy oneself	1	2	3	4	5	6
54) Sex is primarily physical	1	2	3	4	5	6
	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree

55) Sex is primarily a bodily function, like eating	1	2	3	4	5	6
56) Sex is mostly a game between males and females	1	2	3	4	5	6

Beliefs

The following 31 statements relate to beliefs. Circle the number that indicates the degree of your agreement/disagreement with each statement.

	Strongly Disagree	Disagree	Agree	Strongly Agree
57) In general, I will do anything to win	1	2	3	4
58) If I could, I would frequently change sexual partners	1	2	3	4
59) I will only be satisfied when women are equal to men	1	2	3	4
60) In general, I do not expend a lot of energy trying to win at things	1	2	3	4
61) An emotional bond with a partner is the best part of sex	1	2	3	4
62) I feel best about my relationships with women when we are equals	1	2	3	4
63) Winning is not my first priority	1	2	3	4
64) If I could, I would date a lot of different people	1	2	3	4
65) Winning isn't everything, it's the only thing	1	2	3	4
66) I would only have sex if I was in a committed relationship	1	2	3	4

	Strongly Disagree	Disagree	Agree	Strongly Agree
67) I treat women as equals	1	2	3	4
68) I only get romantically involved with one person	1	2	3	4
69) I don't mind losing	1	2	3	4
70) In general, I control the women in my life	1	2	3	4
71) I would feel good if I had many sexual partners	1	2	3	4
72) It is important for me to win	1	2	3	4
73) More often than not, losing does not bother me	1	2	3	4
74) Men and women should respect each other as equals	1	2	3	4
75) Long-term relationships are better than casual sexual encounters	1	2	3	4
76) Women should be subservient to men	1	2	3	4
77) Emotional involvement should be avoided when having sex	1	2	3	4
78) Winning is not important to me	1	2	3	4
79) Men should not have power over women	1	2	3	4
80) It would be enjoyable to date more than one person at a time	1	2	3	4
81) The best feeling in the world comes from winning	1	2	3	4
82) I like emotional involvement in a romantic relationship	1	2	3	4
83) Things tend to be better when men are in charge	1	2	3	4
84) A person shouldn't get tied down to dating just one person	1	2	3	4
85) I love it when men are in charge of women	1	2	3	4

	Strongly Disagree	Disagree	Agree	Strongly Agree
86) I work hard to win	1	2	3	4
87) I would only be satisfied with sex if there was an emotional bond	1	2	3	4

Attitudes

The following 10 statements relate to general attitudes. Circle "T" for true if the statement reflects your attitudes or "F" for false if the statement does not reflect your attitudes.

	True	False
88) I am always willing to admit it when I make a mistake	T	F
89) I always try practice what I preach	T	F
90) I never resent being asked to return a favor	T	F
91) I like to gossip at times	T	F
92) There have been occasions when I took advantage of someone	T	F
93) I sometimes try to get even rather than forgive and forget	T	F
94) I have never been irked when people expressed ideas very different from my own	T	F
95) I have never deliberately said something that hurt someone's feelings	T	F
96) At times I have really insisted on having things my own way	T	F
97) There have been occasions when I felt like smashing things	T	F

Sociodemographics

98) Date of Birth (mm/dd/yyyy): _____

99) Your School Year/Rank (Circle one): Freshman Sophomore Junior Senior 5th Year

100) Gender (Circle one): Male Female

101) What Year did you Graduate High School? : _____

102) Are you Engaged or Married? Yes No

107) Please Indicate the Level of your Attendance to Religious Services during High School: _____ Heterosexual _____ Bisexual _____ Homosexual _____ Trans-sexual	108) Please Indicate the Highest Level of Education for each of your Parents: _____ Other: _____	
104) Please Indicate Your Ethnicity: _____ African American/Black _____ White/Caucasian _____ Asian _____ Pacific Islander _____ Hispanic _____ Other: _____ _____ Mixed Ethnicity: _____ Are you fluent in English? Yes _____ No _____	105) Which of the Following Best describes your Home Living Environment during High School? _____ I lived with my two birth parents _____ Raised by a single parent _____ My parents are divorced and I lived with one parent _____ My parents are divorced and I lived with two parents _____ I lived with a biological parent and a step parent _____ I lived with relatives _____ I lived with a guardian Are you currently living at home with your parents? Yes _____ No _____	
	106) How many siblings lived in your house hold?	_____

_____	Daily		Mother	Father
_____	Once a week			
_____	Once a month	Some High School	_____	_____
_____	Once every six months	Graduated High School	_____	_____
_____	Only attend during religious	Some College	_____	_____
_____	holidays /observances	Graduated College	_____	_____
_____	Never within the past year	Graduate Degree	_____	_____

Female Version

Instructions

The following 9 pages contain questions that are divided into 5 separate sections. Please read and follow the instructions for each section carefully.

Sexual Experience

The following 29 questions relate to sexual experience. Please follow the instructions in each of the sections. We are going to ask you about your sexual experience before and after college. Only count a partner once either before college or after college.

Please answer the following by placing a number on the line provided. Sexual intercourse is when the male inserts his penis into the female vagina. If you have not engaged in the behavior, place an "X" on the lines provided.

- 1) What age (in months and years) were you at the time of first consensual sexual intercourse?
: _____ years _____ months
 - 2) How many different sexual intercourse partners have you had while living at home before college? : _____
 - 3) How many different sexual intercourse partners have you had while living away from home during college? : _____
-

Please answer the following by placing a number on the line provided. Giving oral sex is defined as contact of your mouth with the male penis to orgasm. If you have not engaged in the behavior, place an "X" on the lines provided.

- 4) What age (in months and years) were you at the time of giving first consensual oral sex? :
_____ years _____ months
 - 5) How many different partners have you given oral sex to while living at home before college? :

 - 6) How many different partners have you given oral sex to while living away from home during college? :

-

Please answer the following by placing a number on the line provided. Receiving oral sex is defined as male mouth contact with your vagina to orgasm. If you have not engaged in the behavior, place an "X" on the lines provided.

- 7) What age (in months and years) were you at the time of receiving first consensual oral sex?
: _____ years _____ months
 - 8) How many different partners have you received oral sex from while living at home before college? : _____
 - 9) How many different partners have you received oral sex from while living away from home during college? : _____
-
-

Please answer the following by placing a number on the line provided. Anal sex is defined as when the male inserts his penis into the female anus. If you have not engaged in the behavior, place an "X" on the lines provided.

10) What age (in months and years) were you at the time of first consensual anal sex?

: _____ years _____ months

11) How many different anal sex partners have you had while living at home before college? :

12) How many different anal sex partners have you had while living away from home during college? : _____

For the following 16 statements, with how many different partners have you engaged in the behavior described? Place the number of different partners you have engaged in the behavior on the line. If you have engaged in the behavior with 10 or more different partners write "10+" on the line provided.

13) Kissing without tongue contact _____

14) Kissing with tongue contact _____

15) Petting with clothes on _____

16) Male feeling your covered breasts _____

17) Male feeling your nude breast _____

18) Petting (groping) with clothes off _____

19) Male lying prone with you, petting (groping) without penetration of your vagina _____

20) Male mouth contact with your breast _____

21) Male manipulation of your genitalia _____

22) Manipulation of male penis _____

23) Sexual intercourse in face-to-face position with male on top _____

24) Mouth contact with male penis _____

25) Male mouth contact with your genitalia _____

26) Sexual intercourse, face-to-face, with you on top _____

27) Sexual intercourse, face-to-face, in side position _____

28) Sexual intercourse, with male penis entering your vagina from the rear _____

29) Sexual intercourse, male penis entering the your anus _____

Sexual Attitudes

The following are 27 statements relate to attitudes towards sex. Circle the number that indicates the degree of your agreement/disagreement with each statement.

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
30) Casual sex is acceptable	1	2	3	4	5	6
31) I would like to have sex with many partners	1	2	3	4	5	6
32) One-night stands are sometimes very enjoyable	1	2	3	4	5	6
33) It is okay to have ongoing sexual relationships with more than one person at a time	1	2	3	4	5	6
34) It is okay to manipulate someone into having sex as long as no future promises are made	1	2	3	4	5	6
35) Sex as a simple exchange of favors is okay if both people agree to it	1	2	3	4	5	6
36) The best sex is with no strings attached	1	2	3	4	5	6
37) Life would have fewer problems if people could have sex more freely	1	2	3	4	5	6
38) It is possible to enjoy sex with a person with a person and not like that person very much	1	2	3	4	5	6
	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree

39) Sex is more fun with someone you don't love	1	2	3	4	5	6
40) It is alright to pressure someone into having sex	1	2	3	4	5	6
41) Extensive premarital sexual experience is fine	1	2	3	4	5	6
42) Extramarital affairs are alright as long one's partner doesn't know about them	1	2	3	4	5	6
43) Sex for its own sake is alright	1	2	3	4	5	6
44) I would feel comfortable having intercourse with my partner in the presence of other people	1	2	3	4	5	6
45) I do not need to be committed to a person to have sex with him/her	1	2	3	4	5	6
46) Prostitution is acceptable	1	2	3	4	5	6
47) It is okay for sex to be just good physical release	1	2	3	4	5	6
48) Sex without love is meaningless	1	2	3	4	5	6
49) People should at least be friends before they have sex together	1	2	3	4	5	6
50) In order for sex to be good, it must also be meaningful	1	2	3	4	5	6
51) Sex is best when you let yourself go and focus on your own pleasure	1	2	3	4	5	6
52) Sex is primarily the taking of pleasure from another person	1	2	3	4	5	6
53) The main purpose of sex is to enjoy oneself	1	2	3	4	5	6
54) Sex is primarily physical	1	2	3	4	5	6

Strongly Disagree Disagree Somewhat Disagree Somewhat Agree Agree Strongly Agree

55) Sex is primarily a bodily function, like eating	1	2	3	4	5	6
56) Sex is mostly a game between males and females	1	2	3	4	5	6

Beliefs

The following 37 statements relate to beliefs. Circle the number that indicates the degree of your agreement/disagreement with each statement.

	Strongly Disagree	Disagree	Agree	Strongly Agree
57) It is important to let people know they are special	1	2	3	4
58) I would feel extremely ashamed if I had many sexual partners	1	2	3	4
59) When I am in a romantic relationship, I give all my energy	1	2	3	4
60) Putting energy into friendships is a waste of time	1	2	3	4
61) If I was single, I would want to date a lot people	1	2	3	4
62) Being mean gets you ahead in life	1	2	3	4
63) Whether I'm in one or not, romantic relationships are often on my mind	1	2	3	4
63) I believe that my friendships should be maintained at all costs	1	2	3	4
64) I prefer long-term relationships to casual sexual one	1	2	3	4
65) I pity people who are single	1	2	3	4
	Strongly Disagree	Disagree	Agree	Strongly Agree

66) I feel good about myself when others know that I care about them	1	2	3	4
67) I would feel guilty if I had a one-night stand	1	2	3	4
68) Having a romantic relationship is essential in life	1	2	3	4
69) Being nice to others is extremely important	1	2	3	4
70) I don't go out of my way to keep in touch with friends	1	2	3	4
71) It is impossible to always be nice to others	1	2	3	4
72) It is not necessary to be in a committed relationship to have sex	1	2	3	4
73) I can be happy without being in a romantic relationship	1	2	3	4
74) I would feel burdened if I had to maintain a lot of friendships	1	2	3	4
75) I would feel comfortable having casual sex	1	2	3	4
76) I make it a point to get together with my friends regularly	1	2	3	4
77) Being in a romantic relationship is important	1	2	3	4
78) I always try to make people feel special	1	2	3	4
79) I frequently change sex partners	1	2	3	4
80) My life plans do not rely on my having a romantic relationship	1	2	3	4
81) If a friendship isn't working, I'll end it	1	2	3	4
82) I try to be nice and sweet	1	2	3	4
83) I would only have sex with the person I love	1	2	3	4
84) When I have a romantic relationship, I enjoy focusing my energies on it	1	2	3	4

Strongly
Disagree

Disagree

Agree

Strongly
Agree

85) I am not afraid to hurt people's feelings to get what I want	1	2	3	4
86) It would be enjoyable to date more than one person at a time	1	2	3	4
87) If I were single, my life would be complete without a partner	1	2	3	4
88) I rarely go out of my way to act nice	1	2	3	4
89) I would only have sex if I was in a committed relationship like marriage	1	2	3	4
90) I am only nice to people I like	1	2	3	4
91) I don't feel guilty if I lose contact with a friend	1	2	3	4
92) I would be ashamed if someone thought I was mean	1	2	3	4

Attitudes

The following 10 statements relate to general attitudes. Circle "T" for true if the statement reflects your attitudes or "F" for false if the statement does not reflect your attitudes.

	True	False
93) I am always willing to admit it when I make a mistake	T	F
94) I always try practice what I preach	T	F
95) I never resent being asked to return a favor	T	F
96) I like to gossip at times	T	F
97) There have been occasions when I took advantage of someone	T	F
	True	False
98) I sometimes try to get even rather than forgive and forget	T	F

99) I have never been irked when people expressed ideas very different from my own	T	F
100) I have never deliberately said something that hurt someone's feelings	T	F
101) At times I have really insisted on having things my own way	T	F
102) There have been occasions when I felt like smashing things	T	F

Sociodemographics

103) Date of Birth (mm/dd/yyyy): _____

104) Your School Year/Rank (Circle one): Freshman Sophomore Junior Senior 5th Year

105) Gender (Circle one): Male Female

106) What Year did you Graduate High School? : _____

107) Are you Engaged or Married? Yes No

108) Are you Currently Pregnant? Yes No

109) Are you Currently Living at Home with your Parents? Yes No

110) What Best Describes your Sexual Orientation?		
_____ Heterosexual	_____ Bisexual	_____ Other: _____
_____ Homosexual	_____ Trans-sexual	
111) Please Indicate Your Ethnicity:	112) Which of the Following Best describes your Home Living Environment during High School?	

<p> <input type="checkbox"/> African American/Black <input type="checkbox"/> White/Caucasian <input type="checkbox"/> Asian <input type="checkbox"/> Pacific Islander <input type="checkbox"/> Hispanic <input type="checkbox"/> Other: _____ <input type="checkbox"/> Mixed Ethnicity: _____ Are you fluent in English? Yes _____ No _____ </p>	<p> <input type="checkbox"/> I lived with my two birth parents <input type="checkbox"/> Raised by a single parent <input type="checkbox"/> My parents are divorced and I lived with one parent <input type="checkbox"/> My parents are divorced and I lived with two parents <input type="checkbox"/> I lived with a biological parent and a step parent <input type="checkbox"/> I lived with relatives <input type="checkbox"/> I lived with a guardian </p>																			
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<p> <input type="checkbox"/> Daily <input type="checkbox"/> Once a week <input type="checkbox"/> Once a month <input type="checkbox"/> Once every six months <input type="checkbox"/> Only attend during religious holidays /observances <input type="checkbox"/> Never within the past year </p>	<table border="0"> <thead> <tr> <th></th> <th>Mother</th> <th>Father</th> </tr> </thead> <tbody> <tr> <td>Some High School</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>Graduated High School</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>Some College</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>Graduated College</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>Graduate Degree</td> <td>_____</td> <td>_____</td> </tr> </tbody> </table>			Mother	Father	Some High School	_____	_____	Graduated High School	_____	_____	Some College	_____	_____	Graduated College	_____	_____	Graduate Degree	_____	_____
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